

REMARKS

The present application was filed on May 19, 2000 and claims priority under 35 U.S.C. §119(e) from copending Provisional Patent Application No.: 60/136,494, filed May 28, 1999. The originally filed application contained claims 1-9 and claims 10-17 have been added during prosecution. Claims 1-17 are pending.

In the outstanding Office Action, the Examiner rejected claims 1, 2, 4-6, 8-11, 13, and 15-17 under 35 U.S.C. §103(a) as being unpatentable over the document "3-Carrier Compact Proposal", 5/17-19, 1999, Paris, cited by the Applicants (hereafter referred to as the "3-Carrier Compact Proposal") and Barany et al., U.S. Patent No. 6,594,252 (hereinafter, "Barany"); and (2) allowed claims 3, 7, 12, and 14.

With regard to the rejections in (1) above, Applicants respectfully traverse these rejections. Independent claim 1 recites in part "providing a 52-multiframe containing 12 blocks of four consecutive frames, two idle frames, and two channels used for control channel purposes, said frames comprising a plurality of sequentially numbered timeslots", and "rotating control channels belonging to *a serving time group* over non-sequential, alternate timeslot numbers within a frame" (emphasis added).

Applicants respectfully submit that neither the 3-Carrier Compact Proposal nor Barany disclose the features in independent claim 1 and therefore the combination of the 3-Carrier Compact Proposal and Barany do not disclose these feature. For instance, the text of "rotating control channels belonging to *a serving time group* over non-sequential, alternate timeslot numbers within a frame" is not disclosed by either the 3-Carrier Compact Proposal or Barany. Applicants, on page 2 (as an example) of Appendix A of Applicants' present disclosure, show an example of "rotating control channels belonging to *a serving time group* over non-sequential, alternate timeslot numbers within a frame". Page 2 of Appendix A shows four frames, where each frame corresponds to one time group, zero through three. Each frame has eight sequentially numbered timeslots. In timeslot one of the first frame corresponding to time group zero, the CPBCCCH (ComPact Broadcast Control CHannel) of

$B(0)^0$ is shown. It should be noted that page 1 of Appendix A of Applicants' specification lists some definitions, which may be used to interpret the other parts of the Appendix. A rotation is performed so that the next control channel for time group zero is in timeslot seven of the first frame corresponding to time group zero, where the control channel is the CPCCCH (ComPact Common Control CHannel) shown as $C(3)^0$.

Similarly, in timeslot three of the second frame corresponding to time group one, the CPBCCH of $B(0)^1$ is shown. A rotation is performed so that the next control channel for time group zero is in timeslot one of the first frame for time group one, where the control channel is the CPCCCH shown as $C(3)^1$.

It should be noted that the rotation of control channels is performed so that control channels belonging to a *serving time group* (e.g., time group zero or one on Page 2 of Appendix A) are rotated over non-sequential, alternate timeslot numbers within a frame, as recited in independent claim 1. Shown graphically using a portion of Page 2 of Appendix A of Applicants' specification, examples of rotations of control channels for the serving time groups zero and one are as follows, as illustrated by arrows:

Frames 0-51 of a 208-multiframe
MFN = 0
TG = 0

TS	0	1	2	3	4	5	6	7
0		B(0) ⁰		X ¹		X ²		X ³
1		B(0) ⁰		X ¹		X ²		X ³
2		B(0) ⁰		X ¹		X ²		X ³
3		B(0) ⁰		X ¹		X ²		X ³
4								
5								
6								
7								
8								
9								
10								
11								
12	PTCCH							
13		X ¹		X ²		X ³		C(3) ⁰
14		X ¹		X ²		X ³		C(3) ⁰
15		X ¹		X ²		X ³		C(3) ⁰
16		X ¹		X ²		X ³		C(3) ⁰
17								

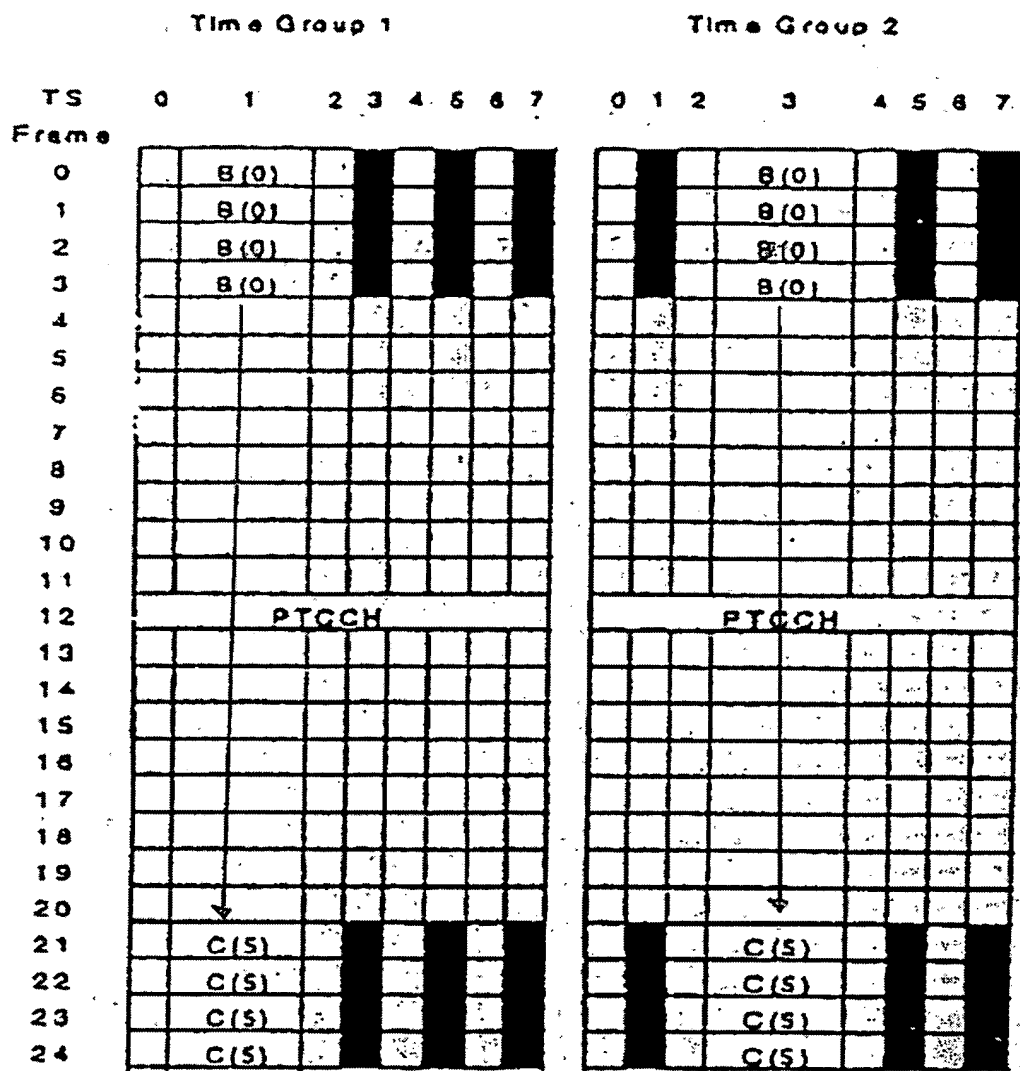
Frames 0-51 of a 208-multiframe
MFN = 0
TG = 1

TS	0	1	2	3	4	5	6	7
0		X ⁰		B(0) ¹		X ²		X ³
1		X ⁰		B(0) ¹		X ²		X ³
2		X ⁰		B(0) ¹		X ²		X ³
3		X ⁰		B(0) ¹		X ²		X ³
4								
5								
6								
7								
8								
9								
10								
11								
12	PTCCH							
13		C(3) ¹		X ²		X ³		X ⁰
14		C(3) ¹		X ²		X ³		X ⁰
15		C(3) ¹		X ²		X ³		X ⁰
16		C(3) ¹		X ²		X ³		X ⁰
17								

The arrows illustrate the rotation of the control channels for the time groups zero and one. The arrows were not part of the original Appendix A of Applicants' specification and are added above for expository purposes. The graphical representation shown above is used as an aid to understanding the present disclosure.

By contrast, one can see in Appendix A of the 3-Carrier Compact Proposal that there is no rotation of control channels *belonging to a serving time group* over non-sequential, alternate timeslot numbers within a frame. For instance, examining Page 9 of the 3-Carrier Compact Proposal (the first page of Appendix A of the 3-Carrier Compact Proposal), it is clear that the control channels in the frame corresponding to time group one of the 3-Carrier Compact Proposal are always in timeslot zero. Similarly, the control channels in the frame corresponding to time group two of the 3-Carrier Compact Proposal are always in timeslot three. Shown graphically using a portion of page 9 of the 3-Carrier Compact

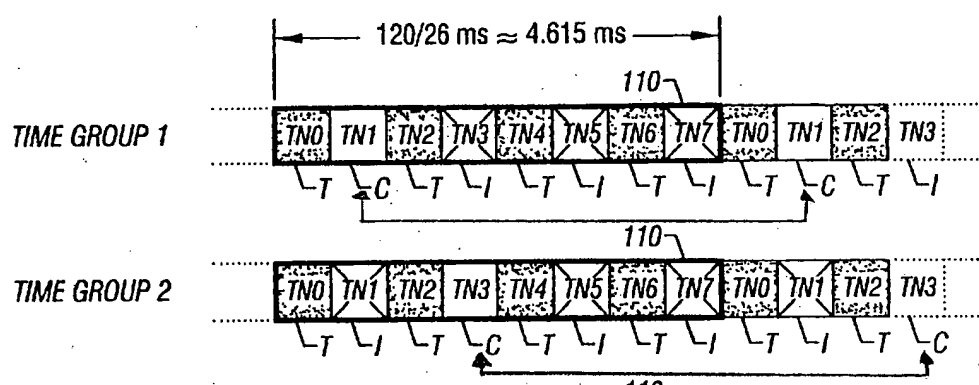
Proposal, there is no rotation of control channels for the serving time groups one and two of the 3-Carrier Compact Proposal:



In the graphical representation of the 3-Carrier Compact Proposal, the arrows are straight and remain in the same timeslots, which indicate that no rotation of control channels occurs for the time groups one and two of the 3-Carrier Compact Proposal.

Thus, Applicants respectfully submit that at least the text of “rotating control channels belonging to a serving time group over non-sequential, alternate timeslot numbers within a frame” as recited in independent claim 1 is not disclosed by 3-Carrier Compact Proposal. Therefore, independent claim 1 is patentable over the 3-Carrier Compact Proposal.

Regarding Barany, a portion of FIG. 11 of Barany is shown below. Again, arrows are drawn between control channels (C) *in a time group*:



As can be seen in FIG. 11 of Barany, in time group 1, the control channel (C) stays in time slot TN1. About the time slots, see col. 11, lines 57-60 of Barany: “Referring to FIG. 11, each carrier (F1, F2 or F3) in the packet data link carries a TDMA frame 110 that is divided into a plurality of time slots. In the illustrated embodiment, eight time slots (or burst periods) TN0-TN7 are used.” Similarly, for time group 2, the control channel (C) stays in time slot TN3. Thus, Barany indicates that *no* rotation of control channels occurs within a frame for the time groups one and two (or, alternatively, Barany does not indicate that rotation of control channels occurs within a frame for the time groups one and two). See also FIGS. 12, 14A, 14B, and 15 of Barany, where *no* rotation of control channels is shown that occurs within a frame for the time groups one and two. Consequently, Barany does not disclose at least “rotating control channels *belonging to a serving time group* over non-sequential, alternate timeslot numbers within a frame” as recited in independent claim 1.

Because neither the 3-Carrier Compact Proposal nor Barany disclose at least “rotating control channels *belonging to a serving time group* over non-sequential, alternate timeslot numbers within a frame” as recited in independent claim 1, then the combination of the 3-Carrier Compact Proposal and Barany does not disclose this subject matter. Therefore, independent claim 1 is patentable over the combination of 3-Carrier Compact Proposal and Barany for at least the reasons given above.

Similar arguments can be made for the other independent claims 5, 10, 13, and 15, as these claims have text similar to independent claim 1. Specifically, independent claim 5 recites in part “wherein individual ones of said base transceiver stations rotate the transmission of control channels *belonging to a serving time group* over non-sequential, alternate timeslot numbers within a frame”; independent claim 10 recites in part “said circuitry operating to rotate the transmission of a control channel *belonging to a serving time group* over odd timeslot numbers in a repeating sequence given as 7, 5, 3, 1, 7, 5,..., where the rotation occurs within a frame between two predetermined frame numbers (FNs)”; independent claim 13 recites in part “circuitry operating to synchronize to the rotation of the transmission of a control channel *belonging to a serving time group* over odd timeslot numbers in a repeating sequence given as 7, 5, 3, 1, 7, 5,..., where the rotation occurs within a frame between two predetermined frame numbers (FNs)”; and independent claim 15 recites in part “rotating transmission of control channels *belonging to a serving time group* over non-sequential, alternate timeslot numbers within a frame that corresponds to the serving time group” (emphases added).

Because independent claims 1, 5, 10, 13, and 15 are patentable, dependent claims 2, 4-6, 8, 9, 11, 16, and 17 are also patentable for at least the reasons given above with respect to their respective independent claims.

Finally, on page 8 of the outstanding Office Action, the Examiner discusses Jyrkka et al., U.S. Patent No. 6,587,695 (hereinafter, “Jyrkka”). It is unclear as to what purpose Jyrkka serves in the outstanding Office Action. For instance, Applicants do not believe that Jyrkka is recited in the Background of Applicant’s specification. Moreover, it

does not appear that Jyrkka is of record in the prosecution of the instant application, nor does it appear that Jyrkka is prior art as defined by 35 U.S.C. §102 to the instant application (the priority date of Jyrkka is Oct. 27, 1999, while the present disclosure claims a priority date of May 28, 1999). Even if Jyrkka could be cited against the Applicants under §103(a), under 35 U.S.C. § 103(c), Jyrkka could not be cited against the Applicants as both Jyrkka and the present invention were both subject to an obligation of assignment to the same person (Nokia).

Applicants do discuss EPGRS in the Background section of the present application:

One attractive solution would be to use the nearly completed specification, at the time of filing of the Provisional Patent Application, for Enhanced General Packet Radio Services, or EGPRS having 8-PSK modulation plus General Packet Radio Services (GPRS) packet data channels, from GSM/ETSI.

Page 2, lines 8-13 of the present disclosure. Nonetheless, it is unclear as to how this (or any) discussion in the Background section of the present disclosure is related to Jyrkka.

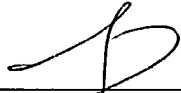
Therefore, Applicants respectfully request more guidance as to the purpose of Jyrkka: Is Jyrkka being cited against the present claims? If so, how?

Based on the foregoing arguments, it should be apparent that claims 1, 2, 4-6, 8-11, 13, and 15-17 are thus allowable over the reference(s) cited by the Examiner, and the Examiner is respectfully requested to reconsider and remove the rejections.

S.N. 09/575,033
Art Unit: 2666



Respectfully submitted:



Robert J. Mauri
Reg. No.: 41,180

10/18/05
Date

Customer No.: 29683

HARRINGTON & SMITH, LLP
4 Research Drive
Shelton, CT 06484-6212

Telephone: (203)925-9400
Facsimile: (203)944-0245
email: rmauri@hspatent.com

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. BOX 1450, Alexandria, VA 22313-1450.

10/18/05
Date

Ann Orentowich
Name of Person Making Deposit

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.